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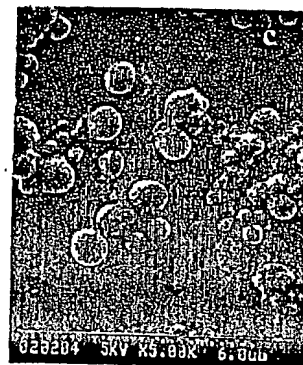
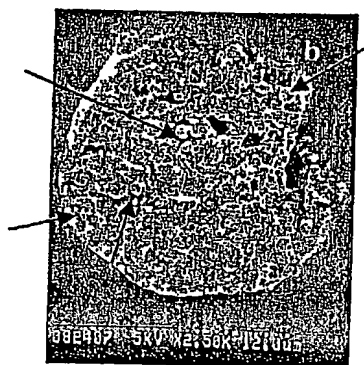
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(54) Title: **POLY(ACRYLOYL-HYDROXYETHYL STARCH)-PLGA COMPOSITE MICROSPHERES**

SEM micrographs of insulin-loaded ACHES-PLGA composite microspheres (a), interior structure of a fractured microsphere (b, arrows point to embedded ACHES microparticles) and freeze dried ACHES hydrogel microparticles (c).



(57) Abstract: The present invention relates to a composite microsphere system comprising poly(D,L-lactide-co-glycolide) (PLGA), poly(acryloyl hydroxyethyl starch) (ACHES), and a pharmaceutically effective amount of a biologically active compound. The active compound may be, for example, an insulin, an interferon, a luteinizing hormone-releasing hormone (LHRH) analog, a somatostatin and/or derivatives thereof, a calcitonin, a parathyroid hormone (PTH), a bone morphogenic protein (BMP), an erythropoietin (EPO), an epidermal growth factor (EGF) or a growth hormone. This invention also relates to methods of using the composite microspheres, and methods of preparing same.

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